



## SEQUENCE LISTING

<110> Mack, David  
Gish, Kurt  
EOS Biotechnology, Inc.

<120> Methods of Diagnosis of Breast Cancer, Compositions and  
Methods of Screening for Modulators of Breast Cancer

<130> 018501-001200US

<140> US 09/829,472

<141> 2001-04-09

<150> US 09/525,361

<151> 2000-03-15

<160> 20

<170> PatentIn Ver. 2.1

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<222> (12)..(2522)

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<213> Homo sapiens

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BCX5 type 1a transmembrane protein

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 M, IL-11, LIF and CNTF receptor) type I  
 transmembrane protein

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M, IL-11, LIF and CNTF receptor) type I  
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<210> 15

<211> 955

<212> PRT

<213> Homo sapiens

<220>

<223> BFA1, calyntenin-2 type I membrane protein

<400> 15

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35 40 45

His Gly Val Ile Thr Glu Asn Asn Asp Thr Val Ile Leu Asp Pro Pro  
50 55 60

Leu Val Ala Leu Asp Lys Asp Ala Pro Val Pro Phe Ala Gly Glu Ile  
65 70 75 80

Cys Ala Phe Lys Ile His Gly Gln Glu Leu Pro Phe Glu Ala Val Val  
85 90 95

Leu Asn Lys Thr Ser Gly Glu Gly Arg Leu Arg Ala Lys Ser Pro Ile  
100 105 110

Asp Cys Glu Leu Gln Lys Glu Tyr Thr Phe Ile Ile Gln Ala Tyr Asp  
115 120 125



Cys Gly Ala Gly Pro His Glu Thr Ala Trp Lys Lys Ser His Lys Ala  
 130 135 140  
 Val Val His Ile Gln Val Lys Asp Val Asn Glu Phe Ala Pro Thr Phe  
 145 150 155 160  
 Lys Glu Pro Ala Tyr Lys Ala Val Val Thr Glu Gly Lys Ile Tyr Asp  
 165 170 175  
 Ser Ile Leu Gln Val Glu Ala Ile Asp Glu Asp Cys Ser Pro Gln Tyr  
 180 185 190  
 Ser Gln Ile Cys Asn Tyr Glu Ile Val Thr Thr Asp Val Pro Phe Ala  
 195 200 205  
 Ile Asp Arg Asn Gly Asn Ile Arg Asn Thr Glu Lys Leu Ser Tyr Asp  
 210 215 220  
 Lys Gln His Gln Tyr Glu Ile Leu Val Thr Ala Tyr Asp Cys Gly Gln  
 225 230 235 240  
 Lys Pro Ala Ala Gln Asp Thr Leu Val Gln Val Asp Val Lys Pro Val  
 245 250 255  
 Cys Lys Pro Gly Trp Gln Asp Trp Thr Lys Arg Ile Glu Tyr Gln Pro  
 260 265 270  
 Gly Ser Gly Ser Met Pro Leu Phe Pro Ser Ile His Leu Glu Thr Cys  
 275 280 285  
 Asp Gly Ala Val Ser Ser Leu Gln Ile Val Thr Glu Leu Gln Thr Asn  
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 Tyr Ile Gly Lys Gly Cys Asp Arg Glu Thr Tyr Ser Glu Lys Ser Leu  
 305 310 315 320  
 Gln Lys Leu Cys Gly Ala Ser Ser Gly Ile Ile Asp Leu Leu Pro Ser  
 325 330 335  
 Pro Ser Ala Ala Thr Asn Trp Thr Ala Gly Leu Leu Val Asp Ser Ser  
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 Glu Met Ile Phe Lys Phe Asp Gly Arg Gln Gly Ala Lys Ile Pro Asp  
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 Gly Ile Val Pro Lys Asn Leu Thr Asp Gln Phe Thr Ile Thr Met Trp  
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 Met Lys His Gly Pro Ser Pro Gly Val Arg Ala Glu Lys Glu Thr Ile  
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 Tyr Val His Asn Cys Arg Leu Val Phe Leu Leu Arg Lys Asp Phe Asp  
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 Gln Ala Asp Thr Phe Arg Pro Ala Glu Phe His Trp Lys Leu Asp Gln  
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Ile Cys Asp Lys Glu Trp His Tyr Tyr Val Ile Asn Val Glu Phe Pro  
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 Val Val Thr Leu Tyr Met Asp Gly Ala Thr Tyr Glu Pro Tyr Leu Val  
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 Thr Asn Asp Trp Pro Ile His Pro Ser His Ile Ala Met Gln Leu Thr  
 485 490 495  
 Val Gly Ala Cys Trp Gln Gly Gly Glu Val Thr Lys Pro Gln Phe Ala  
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 Gln Phe Phe His Gly Ser Leu Ala Ser Leu Thr Ile Arg Pro Gly Lys  
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 Met Glu Ser Gln Lys Val Ile Ser Cys Leu Gln Ala Cys Lys Glu Gly  
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 Phe Asn Pro Ser Gln Ser Ile Leu Val Met Glu Gly Asp Asp Ile Gly  
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 Asn Ile Asn Arg Ala Leu Gln Lys Val Ser Tyr Ile Asn Ser Arg Gln  
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 Phe Pro Thr Ala Gly Val Arg Arg Leu Lys Val Ser Ser Lys Val Gln  
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 Cys Phe Gly Glu Asp Val Cys Ile Ser Ile Pro Glu Val Asp Ala Tyr  
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 625 630 635 640  
 Asp His Phe Trp Arg Pro Ala Ala Gln Phe Glu Ser Ala Arg Gly Val  
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 Thr Leu Phe Pro Asp Ile Lys Ile Val Ser Thr Phe Ala Lys Thr Glu  
 660 665 670  
 Ala Pro Gly Asp Val Lys Thr Thr Asp Pro Lys Ser Glu Val Leu Glu  
 675 680 685  
 Glu Met Leu His Asn Leu Asp Phe Cys Asp Ile Leu Val Ile Gly Gly  
 690 695 700  
 Asp Leu Asp Pro Arg Gln Glu Cys Leu Glu Leu Asn His Ser Glu Leu  
 705 710 715 720  
 His Gln Arg His Leu Asp Ala Thr Asn Ser Thr Ala Gly Tyr Ser Ile  
 725 730 735  
 Tyr Gly Val Gly Ser Met Ser Arg Tyr Glu Gln Val Leu His His Ile  
 740 745 750  
 Arg Tyr Arg Asn Trp Arg Pro Ala Ser Leu Glu Ala Arg Arg Phe Arg  
 755 760 765

Ile Lys Cys Ser Glu Leu Asn Gly Arg Tyr Thr Ser Asn Glu Phe Asn  
 770 775 780  
 Leu Glu Val Ser Ile Leu His Glu Asp Gln Val Ser Asp Lys Glu His  
 785 790 795 800  
 Val Asn His Leu Ile Val Gln Pro Pro Phe Leu Gln Ser Val His His  
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 850 855 860  
 Glu Thr Glu Ala Ala Lys Glu Ser Glu Met Asp Trp Asp Asp Ser Ala  
 865 870 875 880  
 Leu Thr Ile Thr Val Asn Pro Met Glu Lys His Glu Gly Pro Gly His  
 885 890 895  
 Gly Glu Asp Glu Thr Glu Gly Glu Glu Glu Glu Glu Ala Glu Glu Glu  
 900 905 910  
 Met Ser Ser Ser Ser Gly Ser Asp Asp Ser Glu Glu Glu Glu Glu  
 915 920 925  
 Glu Gly Met Gly Arg Gly Arg His Gly Gln Asn Gly Ala Arg Gln Ala  
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 Gln Leu Glu Trp Asp Asp Ser Thr Leu Pro Tyr  
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<210> 16

<211> 2616

<212> DNA

<213> Homo sapiens

<220>

<223> BFG7, EST, type III membrane protein

<220>

<221> CDS

<222> (1) .. (906)

<223> BFG7

<400> 16

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<210> 17  
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 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> BFG7, EST, type III membrane protein

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      35             40             45

Gln Asn Cys Ser Gly Gly Ala Leu Asn His Phe Arg Ser Arg Gln Pro
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Ile Tyr Met Ser Leu Ala Gly Trp Thr Cys Arg Asp Asp Cys Lys Tyr
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 Met Tyr His Thr Cys Val Ala Phe Ala Trp Val Ser Leu Asn Ala Trp  
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 Phe Trp Ser Thr Val Phe His Thr Arg Asp Thr Asp Leu Thr Glu Lys  
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 Met Asp Tyr Phe Cys Ala Ser Thr Val Ile Leu His Ser Ile Tyr Leu  
                             180                            185                            190  
 Cys Cys Val Arg Thr Val Gly Leu Gln His Pro Ala Val Val Ser Ala  
                             195                            200                            205  
 Phe Arg Ala Leu Leu Leu Leu Met Leu Thr Val His Val Ser Tyr Leu  
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 Ser Leu Ile Arg Phe Asp Tyr Gly Tyr Asn Leu Val Ala Asn Val Ala  
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 Ile Gly Leu Val Asn Val Val Trp Trp Leu Ala Trp Cys Leu Trp Asn  
                             245                            250                            255  
 Gln Arg Arg Leu Pro His Val Arg Lys Cys Val Val Val Val Leu Leu  
                             260                            265                            270  
 Leu Gln Gly Leu Ser Leu Leu Glu Leu Leu Asp Phe Pro Pro Leu Phe  
                             275                            280                            285  
 Trp Val Leu Asp Ala His Ala Ile Trp His Ile Ser Thr Ile Pro Val  
                             290                            295                            300  
 His Val Leu Phe Phe Ser Phe Leu Glu Asp Asp Ser Leu Tyr Leu Leu  
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<210> 18

<211> 1284

<212> DNA

<213> Homo sapiens

<220>

<223> BCN4, ESTs, secreted protein

<220>

<221> CDS

<222> (143) .. (874)

<223> BCN4

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 <211> 243  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> BCN4, ESTs, secreted protein

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 Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg Glu Val Val  
 35 40 45  
 Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly  
 50 55 60  
 Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile  
 65 70 75 80  
 Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu  
 85 90 95  
 Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser  
 100 105 110  
 Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe  
 115 120 125  
 Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser  
 130 135 140

Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr  
 145 150 155 160  
 Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile  
 165 170 175  
 Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His  
 180 185 190  
 Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu  
 195 200 205  
 Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly  
 210 215 220  
 Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu  
 225 230 235 240

Leu Pro Lys

<210> 20  
 <211> 243  
 <212> PRT  
 <213> Mus sp.

<220>  
 <223> mouse BCN4, ESTs, mouse orthologue of human BCN4

<220>  
 <221> MOD\_RES  
 <222> (1)..(243)  
 <223> Xaa = any amino acid

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 20 25 30  
 Asn Pro Lys Val Lys Gln Lys Ala Leu Ile Arg Gln Arg Glu Val Val  
 35 40 45  
 Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly  
 50 55 60  
 Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile  
 65 70 75 80  
 Pro Cys Gln Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu  
 85 90 95  
 Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser  
 100 105 110  
 Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe  
 115 120 125  
 Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser  
 130 135 140

Leu	Arg	Leu	Lys	Cys	Arg	Asn	Ala	Cys	Cys	Gln	Arg	Trp	Tyr	Phe	Thr
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Phe	Asn	Gly	Ala	Glu	Cys	Ser	Gly	Pro	Pro	Pro	Ile	Glu	Ala	Ile	Xaa
				165					170					175	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			180					185						190	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
		195					200					205			
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	210					215					220				
Asp	Ala	Tyr	Thr	Gly	Trp	Asp	Ser	Val	Ser	Arg	Ile	Ile	Ile	Glu	Glu
225					230					235					240
Leu	Pro	Lys													